

**VINEYARD APPARATUS, SYSTEM, AND METHOD FOR VINEYARD
MECHANIZATION**

ABSTRACT OF THE DISCLOSURE

For more than thirty-two years, extensive research studies involving various concepts of total

5 vineyard mechanization have been carried out at the Arkansas Agricultural Experiment Station under
the direction of Justin R. Morris (22). Tommy Oldridge was one of the first growers in the region
to commercially test, implement and improve upon the findings of these research studies. These
studies at the University of Arkansas have involved the evaluation of trellising and training systems
suitable for total vineyard mechanization, mechanical shoot positioning, mechanical pruning,
mechanical thinning, mechanical harvesting, and the post-harvest handling and utilization of
10 mechanically harvested grapes (2, 22, 23, 24, 25, 26, 27, 35). The success of this approach to
vineyard mechanization has been the fact that it has concentrated on minimizing or eliminating all
limiting factors impacting the system while maintaining, or in some cases improving, fruit quality.
Also, the researchers have constantly developed, modified and evaluated new equipment for the
15 mechanization of each viticultural operation requiring hand labor. A major effort has been placed
on accomplishing these objectives without any loss in fruit quality.